

### **ABSTRACT OF THE DISCLOSURE**

A high-speed inverse discrete cosine transformation method and apparatus are provided. All elements of a discrete cosine transformation (DCT) matrix for elements having a value other than 0 are searched for in a predetermined order when a total number of elements having a value other than 0 is not greater than a predetermined critical value. Two-dimensional (2D) IDCT is performed on the elements having a value other than 0. 2D IDCT is performed on the DCT matrix when the total number of elements having a value other than 0 is greater than the predetermined critical value.